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ABSTRACT

This is the first annual report documenting the results of the assessment of academic and administrative operations of South Carolina's 33 public colleges and universities. The report summarizes progress made by the institutions during the 1988-89 academic year, focusing on: performance of professional program graduates on licensing and certification examinations, reports of program changes that have occurred as a result of external program evaluations, and success of entering students in meeting college or university admissions prerequisites. Data concerning these three assessment areas are reported separately for each institution in summaries of one to three pages. (JDD)

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SUMMARY REPORT ON INSTITUTIONAL EFFECTIVENESS

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SOUTH CAROLINA COMMISSION ON HIGHER EDUCATION

JANUARY 1990

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SUMMARY REPORT ON INSTITUTIONAL EFFECTIVENESS

SOUTH CAROLINA COMMISSION ON HIGHER EDUCATION

JANUARY 1990

"MEANINGFUL INSTITUTIONAL ASSESSMENT IS DEPENDENT ON HAVING EACH COLLEGE OR UNIVERSITY EXAMINE ITS FINDING AGAINST ITS OWN GOALS AND SHOULD GENERALLY ATTEMPT TO EXAMINE TRENDS OVER AN APPROPRIATE TIME PERIOD. MOST IMPORTANT, IT SHOULD INTERPRET DATA, USING THE RESULTS OF ASSESSMENT TO IMPROVE WHEN WEAKNESSES ARE DISCOVERED. THIS REPORT MAKES NO ATTEMPT TO GLOSS OVER PROBLEMS THAT BECOME APPARENT AS A RESULT OF THE ASSESSMENT PROCESS; IT SHOULD BE OBVIOUS THAT ANY INSTITUTION WILL DISCOVER SOME AREAS THAT CAN BENEFIT FROM IMPROVEMENT IF IT THOROUGHLY ASSESSES ITS ACTIVITIES. HOWEVER, SUCH AREAS SHOULD BE ADDRESSED. THUS, THE COMMISSION'S REPORT PLACES A STRONG EMPHASIS ON HOW THE COLLEGES AND UNIVERSITIES ARE USING ASSESSMENT INFORMATION WHEN PROBLEMS ARE DISCOVERED. WE BELIEVE THAT INSTITUTIONS THAT ADMIT AND ADDRESS PROBLEMS ARE BEING ACCOUNTABLE AND SHOULD BE COMMENDED FOR THEIR ACTIONS RATHER THAN CONDEMNED FOR THEIR CANDOR. ONLY IF IMPROVEMENT FAILS TO TAKE PLACE IN A TIMELY MANNER IS IT APPROPRIATE TO REQUIRE FURTHER REMEDIAL MEASURES.

THIS SUMMARY REPORT IS PURPOSELY DESIGNED TO DISCOURAGE INTER-INSTITUTIONAL COMPARISONS. THE ENTERING FRESHMAN AT A MAJOR RESEARCH INSTITUTION MAY WELL HAVE TEST RESULTS THAT ARE SUPERIOR TO THOSE OF A GRADUATE OF AN INSTITUTION SERVING DISADVANTAGED STUDENTS FROM A LOCALIZED AREA. HOWEVER, THE LATTER INSTITUTION MAY "MOVE" ITS STUDENT FURTHER, MEETING ITS GOALS AND THOSE OF THE STUDENT AND SOCIETY. WE HAVE REPORTED ON EACH INSTITUTION SEPARATELY AND URGE READERS OF THIS REPORT TO FOCUS ON THE INSTITUTION'S ACCOMPLISHMENTS AND CONCERNS IN THE CONTEXT OF ITS INDIVIDUAL GOALS AND CLIENTELE. THE CENTRAL PURPOSE OF THE ONGOING STATEWIDE INSTITUTIONAL EFFECTIVENESS EFFORT IS NOT TO COMPARE INSTITUTIONS BUT TO STRENGTHEN THE QUALITY OF INDIVIDUAL COLLEGES AND UNIVERSITIES THROUGH A CONTINUOUS CYCLE OF IMPROVEMENT."

INTRODUCTION

On February 2, 1989, the Commission on Higher Education approved Guidelines for Institutional Effectiveness that provide the State's colleges and universities with a list of eighteen components of their academic and administrative operations that require assessment. The Guidelines also include a schedule that phases in such assessment over four years. This is the first annual report on the results of that assessment. It summarizes progress that was made by the institutions during the 1988-89 academic year in determining their effectiveness, and generally focuses on three of the components--performance of professional program graduates on licensing and certification examinations, reports of program changes that have occurred as a result of external program evaluations, and success of entering students in meeting college or university admissions prerequisites. Information on the assessment of additional areas occasionally is included when institutions have obtained and voluntarily reported useful data ahead of the required implementation schedule. Since the technical colleges are not subject to external program evaluations and, as open door institutions, do not require that their students meet the admissions prerequisites demanded by the senior colleges and universities, there is no report on two of those technical institutions that have no degree programs for which there are licensing and certification examinations.

The amount of information on institutional assessment that was submitted by the institutions is voluminous, even when this first report only addresses a few of the eighteen effectiveness components. Since there are thirty-three public institutions, the Commission staff has attempted to summarize the information submitted by each institution in one to three pages. A copy of each institution's report is available in the Commission's offices.

If institutional assessment is to be meaningful, each college or university should examine its finding against its own goals and should generally attempt to examine trends over an appropriate time period. Most important, it should interpret data, using the results of assessment to improve when weaknesses are discovered. This report makes no attempt to gloss over problems that become apparent as a result of the assessment process; it should be obvious that any institution will discover some areas that can benefit from improvement if it thoroughly assesses its activities. However, such areas should be addressed. Thus, the Commission's report places a strong emphasis on how the colleges and universities are using assessment information when problems are discovered. We believe that institutions that admit and address problems are being accountable and should be commended for their actions rather than condemned for their candor. Only if improvement fails to take place in a timely manner is it appropriate to require further remedial measures.

Finally, this summary report is purposely designed to discourage interinstitutional comparisons. The entering freshman at a major research institution may well have test results that are superior to those of a graduate of an institution serving disadvantaged students from a localized area. However, the latter institution may "move" its student

further, meeting its goals and those of the students and society. We have reported on each institution separately and urge readers of this report to focus on the institution's accomplishments and concerns in the context of its individual goals and clientele. The central purpose of the ongoing statewide institutional effectiveness effort is not to compare institutions but to strengthen the quality of individual colleges and universities through a continuous cycle of improvement.

The next section of this report briefly describes the three effectiveness components that are emphasized, and includes some general observations that can be made after reviewing the submissions from the colleges and universities.

INSTITUTIONAL EFFECTIVENESS COMPONENTS EMPHASIZED IN THIS REPORT

Performance of Professional Program Graduates on Licensing and Certification Examinations

The Commission's Guidelines for Institutional Effectiveness provide for the use of multiple measures to assess the effectiveness of academic programs. When graduates of such programs take professional licensing or certification examinations, the Guidelines require that institutions report aggregate data, along with its interpretation, as one measure of the programs' effectiveness.

Twenty-five institutions reported on the results of 110 licensing or certification examinations that were evaluated during the 1988-89 academic year. Some examinations such as those in nursing and education are common to a number of institutions. Others, such as the aircraft maintenance technology certification exam given by the Department of Transportation, Federal Aviation Administration, is only reported on by one institution (Florence-Darlington Technical College). Several of the examinations deserve special comment.

First, seven of eleven senior public institutions with business or accounting majors submitted reports on the results of the Certified Public Accounting (CPA) examination. Although all seven reporting institutions attempted to interpret the data and several found ways to use the data for improvement, there was universal comment that use of this examination is not required of graduates entering the accounting profession and is not a major goal of most of the programs; only a small percentage of the graduates typically take the exam. The Board of Accountancy does not identify individual examinees, their level of preparation, or the years they attended the institutions, and most students who pass the examination do so in multiple sittings during which they satisfy different "areas" of the examination.

Considering these difficulties, the Commission was pleased with the efforts most institutions made in their initial reports. Several institutions (particularly those with graduate programs) are very concerned that the average national pass rate exceeds that in South Carolina and are taking extraordinary measures to analyze their weaknesses and strengthen their programs. However, the Commission feels that due to the difficulties in obtaining and interpreting appropriate data on this examination, its continued use as a measure of program effectiveness should be voluntary.

Second, 15 institutions submitted reports on the results of the National Council Licensing Examination for Registered Nurses (NCLEX-RN). While a number of the institutions' graduates did quite well, several institutions experienced fairly serious declines in their pass rates. Those institutions exhibited real concern and took immediate steps to ameliorate the situation. Informal reports indicate that the pass rates for those institutions have improved significantly in the subsequent

examination. However, neither all of the decline nor all of the improvement should be attributed to actions taken by the institutions. It appears that changes in the examination and in the nurse candidate pool may have produced certain aberrations in the results in both the State and the nation during 1988-89. And while program improvements may have helped to raise some scores for the July, 1989 administration, such improvements usually require several years of implementation to have their full impact.

Third, although all institutions with teacher education programs reported on education examinations, several of the examinations produced data of limited utility for purposes of improvement. For example, the pass rate on the professional knowledge examination of the National Teacher Examination (NTE) is extremely high at most of the public institutions (95% to 100%), and specialty examinations are sometimes reported in a way that makes their interpretation exceedingly difficult. Four institutions voluntarily provided Education Entrance Examination (which are not licensing or certification examinations) data to supplement their NTE information. These tests assess basis skills necessary to enter the field of education, rather than knowledge about education. However, because of their potential usefulness in establishing a benchmark against which later examination scores can be compared, the Commission will request that these data be included in all institutions' future reports.

The "Fundamentals of Engineering" examination is taken by approximately 50 percent of the senior engineering majors in South Carolina, since many students do not aspire to licensure as professional engineers. Furthermore, such licensure requires a satisfactory record of four years or more work in the field of engineering and satisfactory performance on the "Principles of Practice" of Engineering examinations. Thus reports on the "Fundamentals of Engineering" examination provide only a partial picture of the licensing process for a portion of the engineering graduates.

In short, licensing and certification examinations provide only one indicator of the strengths of an academic major. Depending on the test contents and design, selectivity of examinees, reporting processes, and interpretation of data, the findings may or may not be useful to determine strengths and weakness and improve curriculum and instruction. The institutions and the Commission will continue to gain experience with the use of licensing and certification examinations as measures of program strengths and weaknesses, and will report annually on those that are deemed useful.

Reports of Program Changes that have occurred as a Result of External Program Evaluations

Since 1980, the Commission has been employing out-of-state consultants to review existing academic programs in the senior

institutions. Each program is now reviewed by such consultants approximately once every seven years. The consultants consider issues ranging from quality to productivity from both statewide and institutional perspectives, reporting to the Commission and making recommendations ranging from commendations to program termination. While most programs are recommended for unconditional continuation, the Commission does give conditional approval or probationary status to a few that have problems that are of sufficient concern to require reports on followup actions. The Commission's Committee on Academic Affairs formally approves unconditional continuation of such programs only after evidence is presented that appropriate action has been taken.

This report documents such Committee actions, thereby indicating that the institutions have been accountable and made program improvements where they are deemed desirable.

Success of Entering Students in Meeting College or University Admission Prerequisites

In 1983, in order to strengthen the preparation of entering students, the Commission and the governing boards of the senior public colleges and universities approved high school course requirements that were considered prerequisites for admission to public senior institutions and the two-year university campuses of the University of South Carolina. More than four years were allowed for full implementation to provide for appropriate advisement beginning with students who were just entering high school. The institution's began collecting data on the extent to which each year's freshmen met the high school course prerequisites in 1986, two years before the new course requirements were applicable.

This report describes the extent to which 1989 freshmen who graduated from high school in 1988 or subsequent years met the high school course prerequisites as compared to 1987 freshmen, who graduated from high school in 1987, and who entered college one year before the prerequisites were implemented, but almost four years after they were announced.

INSTITUTIONAL

REPORTS

Performance of Professional Program Graduates on Licensing and Certification Exams

The Citadel is actively building data bases on the results of three licensing or certification examinations, none of which is required for graduation from the associated programs. Although the institution does not offer a separate major in accounting, a small number of graduates (probably in business administration) attempt the certified public accounting examination each year. None of the eight first-time takers in 1988 passed some part(s)/gained conditional status, compared to a State average of approximately 25 percent. Fifty percent of 24 candidates who were retested passed some part(s)/gained conditional status, close to the State average of approximately 53 percent. Since no subscores are presented for the various areas of the test, the Department of Business Administration is developing plans for monitoring the alumni pass rates and surveying graduates in order to incorporate their experiences on the CPA exam in future curricula revisions.

All Citadel graduates who teach in the State of South Carolina are required to pass the National Teacher Examination (NTE). However, students are not required to take the test prior to graduation, and most historically have not requested that their scores be sent to the school. Of the 19 undergraduate and 12 graduates who completed degrees in education at The Citadel during the 1987-88 school year, 3 undergraduates and 6 graduates had their scores reported. All nine students passed both the professional knowledge examination and the specialty examination in their areas. Current graduates are being strongly encouraged to report their scores so that the institution can build a better data base.

The pass rates of Citadel seniors, a majority of whom took the Fundamentals of Engineering Examination in the 1987-88 school year, was 30 percent in civil engineering and 100 percent in electrical engineering. The rate in civil engineering is significantly below the State and national averages, while the rate in electrical engineering is significantly above the State and national averages. It should be noted that an institution can easily increase its pass rate by recommending that only the strongest students take the examination. We commend The Citadel for encouraging all students to take the examination. We are pleased that the engineering departments are developing plans to monitor pass rates and performances on each section of the exam and to use the data for curricula reform.

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 57 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at The Citadel met all ten high school course prerequisites. This figure increased to 98 percent in 1989, indicating that very few resident students are admitted with exceptions.

Academic Performance of Student Athletes

While the first report on this institutional effectiveness area is not due until July 1, 1990, The Citadel chose to provide early information, including a copy of the NCAA Academic Reporting Form for 1988-89, which provides information on "recruited" athletes who entered the college in 1982, 1986, and 1987. All Citadel athletes who matriculated during those years met the published institutional admissions criteria. By 1987, the graduation rate for athletes who entered in 1982-83 with grants in aid was 68 percent. The institutional graduation rate was 75 percent, and the recruited student athletes' graduation rate was 78 percent. The academic work of Citadel student athletes is monitored closely, and tutorial assistance or personal counseling is provided as needed.

CLEMSON UNIVERSITY

Performance of Professional Program Graduates on Licensing and Certification Examinations

Clemson University submitted a report on the results of licensing and certification examinations in accounting, education, engineering, and nursing. The report describes the examination results over multiple administrations, placing these results in context, and explaining how the departments are using the information for purposes of improvement where that seems advisable.

Approximately 35 percent of Clemson's accounting graduates sit for the certified public accounting examination. In general, Clemson graduates meet or exceed the average pass rates for all State candidates, showing the strongest performance during the most recent years in which scores were reported. For example, the percentage of Clemson first time examinees passing all parts of the CPA exam on the November 1986, May 1987, and November 1987 administrations (17.1, 13.6, and 11.6 percent respectively) surpassed the State pass rate average for the same periods by as much as 8.4 percent in November 1986, by 3.7 percent in May 1987, and by 5.6 percent in November 1987. The percentage of Clemson repeat test candidates who passed all parts of the CPA exam between May 1985 and November 1987 exceeded State and most national pass rate averages. In an effort to strengthen the curriculum further, the department has increased the number of intermediate accounting courses from two to three and has developed a non-credit coaching course which is offered through the Professional Development Office.

During the 1988-89 academic year, the pass rates for all administrations of the National Teacher Examinations (NTE) professional knowledge examination was 96.1 percent. Undergraduate and graduate education majors on the National Teacher Examination specialty area examinations averaged 88.5 percent and 95.7 percent respectively. Some weaknesses were discovered in specialty area scores for students with teaching areas in social and political science, and appropriate modifications have been made in that curriculum as well as in the science teaching areas for elementary and secondary teachers.

The pass rates of Clemson students who took the Fundamentals of Engineering examinations in April and October 1988 exceed the national pass rates for both administrations. In April 1988, 123 Clemson students took the examination and 76 percent passed it as compared to 73 percent nationally. During the October 1988 administration, 155 Clemson students sat for the examination and 72 percent achieved passing scores (10 percent above the national average). No curriculum changes are planned.

Graduates of Clemson's nursing program who sat for the examination during 1988-89 did not fare well; the pass rates for July, 1988 and February 1989 were 78.1 percent and 43.8 percent, below the State average. However, the College of Nursing deserves praise for taking aggressive action to address the problem and implementing a number of corrective measures involving such areas as student preparation and curriculum revision.

Reports of Program Changes that have occurred as a Result of External Program Evaluations

During the 1985-86 academic year, out-of-state consultants were critical of the M.Ed. program in special education, citing lack of curricular depth, faculty resources, and institutional commitment to the program. In October, 1988, the Commission's Committee on Academic Affairs granted full approval for continuation of the program based on corrective actions taken by the College of Education.

Success of Entering Students in Meeting College or University Admission Requirements

In the Fall of 1987, 73 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at Clemson University met all ten high school course prerequisites. This figure increased to 94 percent in 1989, an extremely significant improvement.

COLLEGE OF CHARLESTON

Performance of Professional Program Graduates on Licensing and Certification Exams

The College of Charleston submitted data on the number of first time candidates who took the Certified Public Accounting (CPA) examination and the percentage of parts passed on the exam. Parallel statewide and national data were provided for 1986 and 1987. College of Charleston pass rates for 1986 and 1987 compare favorably to South Carolina pass rate averages for those years. Additional quality indicators that are monitored by the College in assessing the success of accounting graduates include job placement and performance, admission to graduate study, and the success of students in winning scholarships via statewide competitions. Success in these assessment areas are used by the College as "...indicators of a well-rounded program which produces good accountants."

The College of Charleston's pass rate for 137 first-time examinees tested on the February 1989 administration of the Education Entrance Examination (EEE) was 89%, 13 percentage points above the State's aggregate pass rate. As the EEE is designed to ascertain student mastery of basic skills in reading, writing, and mathematics, the College's School of Education has not set a pass rate goal for the examination.

Data on the performance of College of Charleston students on five administrations of the National Teachers Examination (NTE) area exams indicate a consistently high pass rate. The College has set a pass rate goal of 100% in all areas of the examination. The goal was met on the November 1988 administration of the NTE area examination, and was missed by only a narrow margin on the other four administrations (i.e., 1 to 4 students failed one or more "areas" tested). The College's School of Education has also set a 100% pass rate goal for the NTE Test of Professional Knowledge (TPK). Data on three administrations of the TPK during 1988-89 indicate that 117 out of 118 students taking the exam passed it.

In general, aggregate scores for College of Charleston students show that those who seek admission to education programs have mastered basic skills (as measured by the Education Entrance Examination) and that the teacher education programs prepare students for meeting the knowledge requirements of the teaching profession.

Success of Entering Students in Meeting College or University Admissions Requirements

In the Fall of 1987, 59 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at the College of Charleston met all ten high school course prerequisites. This figure increased to 96 percent in 1989, indicating that few students are able to justify exceptions to the stated policy.

Performance of Professional Program Graduates on Licensing and Certification Exams

Francis Marion College submitted descriptive information on students completing in 1988-89 teacher education programs in early childhood education, elementary education, and secondary education. Specifically, data and interpretive information were provided on students who took the National Teachers Examination and were evaluated through the Assessment of Performance of Teaching (APT) instrument used for first-year teachers in South Carolina. Eighty-six percent of the students who took the teaching area of the NTE scored high enough to meet South Carolina certification requirements (87 of 101 students). The percentage of students with passing scores varied with each education program at the College: 92 percent in elementary education; 88 percent in early childhood education; and 78 percent in secondary teaching fields. The College has established the goal of raising over the next three years the passing rate of students majoring in secondary education from 78 percent to 85 percent and those in early childhood education from 88 percent to 90 percent. Ninety-four percent of the College's students who took the Professional Knowledge Examination (88 of 94 students) achieved or surpassed the State's aggregate pass score.

In addition to test results, College faculty and staff use evaluations from student teachers, student teacher supervisors, public school site coordinators, superintendents, and graduates who have completed their first year of teaching to assess the effectiveness of the College's teacher education programs. The results of these surveys have indicated that students are prepared well in their teaching fields, and that graduates of Francis Marion College education programs believe they have received "very good" or "good" professional preparation for teaching.

The College provided information on the performance of students on two administrations of the CPA exam (May 1988 and November 1988). Thirty-five percent of the students either passed the exam or gained conditional status (10 of 29). To further increase the pass rate of students on the exam, faculty in the school of Business are modifying the curriculum so that courses "most appropriate" for success on the examination are offered during the last two years of the program of study. Moreover, accounting faculty and the School of Business are encouraging some of the best accounting students to take the exam (some of whom decide to work in the private sector and therefore do not generally take the exam). Faculty are committed to raising the pass rate on the CPA examinations to a level "at least equal" to the national pass rate.

Success of Entering Students in Meeting College or University Admissions Prerequisites

Significant improvement has occurred since the Fall of 1987 in the percentage of South Carolina high school graduates enrolled as freshmen at Francis Marion College who meet all ten prerequisites necessary for admission. In the Fall of 1987 only 33 percent of the State's high school graduates who were entering freshmen at the College met all ten prerequisites versus 81 percent in the Fall of 1989.

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Success of Entering Students in Meeting College or University Admissions Prerequisites

Significant improvement has occurred since the Fall of 1987 in the percentage of South Carolina high school graduates enrolled as freshmen at Francis Marion College who meet all ten prerequisites necessary for admission. In the Fall of 1987 only 33 percent of the State's high school graduates who were entering freshmen at the College met all ten prerequisites versus 81 percent in the Fall of 1989.

Performance of Professional Program Graduates on Licensing and Certification Exams

Lander College submitted data and interpretive information on National Teachers Examinations (NTE), National League for Nursing (NLN) test scores, and the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The College's student pass rate on the NTE Professional Knowledge Examination is high; of 77 students examined during the 1988-89 academic year, 73 students passed the exam (a 95 percent pass rate). Data from the NTE Professional Knowledge Examination and the Specialty Area Examination are used by the Division of Teacher Education in revising teacher education curricula. Moreover, the Division uses as a summative evaluation tool a student evaluation instrument which is circulated annually to all teacher education graduates. Data gathered through use of the instrument enable faculty to identify weaknesses by comparing the competencies of Lander College graduates with employer expectations for new employees. The data are used to revise Division processes and procedures.

The College's Division of Nursing utilizes National League for Nursing (NLN) test scores and NCLEX-RN results as part of its program assessment. While NLN scores were not reported by the College in its assessment submission, the scores are used by Nursing faculty as one measure of student professional nursing knowledge. The scores are also utilized to assess content strengths and effectiveness within the programs and to advise students of knowledge deficit areas. Student advisement allows for graduate remediation before students take the NCLEX.

Data on student performance on the NCLEX-RN was provided for 1987 and 1988 graduates. In 1987, 91 percent of the College's nursing program graduates who took the examination for the first time passed it. In 1988, 83 percent of the graduates passed the examination on the first attempt. Graduates who did not pass the examination on the first attempt did so on the following exam administration.

The Division of Nursing uses a variety of assessment methods to evaluate program effectiveness. External consultants and graduate and employer survey reports are also utilized to assess program quality. For example, data obtained from graduates and employers six to twelve months following graduation are used to determine the match between program graduate outcome competencies and the expectations of employers for "on the job" performance competencies. The College also uses information received from a community-wide council of nurse educators and employers who meet quarterly to monitor the match between program focus and employer need.

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 34 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at Lander College

met all ten high school course prerequisites. By the fall of 1989 that number rose to 84 percent, a significant increase in the general preparedness of Lander's in-state freshmen students.

Performance of Professional Program Graduates on Licensing and Certification Examinations

As an institution dedicated to professional training, the Medical University has numerous degree programs that lead to licensing and certification requirements or opportunities for program graduates. One challenge facing the University in future years involves interpreting the voluminous data generated through professional examinations.

The College of Nursing reported on the results of Bachelor of Science program graduates on the NCLEX-RN and on Master of Science graduates on the Certificate for Nurse Midwifery examination. Pass rates on both examinations are impressive. Of 64 students tested on the NCLEX-RN in July 1988, 94 percent passed the examination. Four students who took the examination again in February 1989 passed it. While the 1988 pass rate of the University's nursing students on the NCLEX-RN exam decreased by 2 percent from that of the previous year, the national mean decreased by 7 percent during the same period.

Both of the University's two Master of Science in Nursing (MSN) students who took the certification exam for nurse-midwifery in 1988 passed it. 1988 was the first year that MSN students took the examination.

The College of Medicine presented data only on the National Board I examination which was administered in June and September 1988, and on the National Board II examination that was given in September 1988. The pass rate for both exams was high. A total of 124 students were tested within the two administrations of the National Board I examination. Of that number, 96.8 percent passed the examination (an improvement of approximately 1.5 percent over the previous year). All of the 72 medical students who took the National Board II examination in September 1988 passed it thus duplicating the 100 percent pass rate of the previous year.

Forty-one students in the College of Dental Medicine took the National Board Part II examination in 1988 and achieved a pass rate of 92.7 percent. In addition to the National Board examination, the South Carolina Board of Dentistry administers an examination that must be passed successfully in order for a candidate to receive a license to practice dentistry within the State. The College reports that the average number of College of Dental Medicine graduates who take the State Board is 45 with a 95.5 percent pass rate.

Fifty-five Bachelor of Science students in the College of Pharmacy took the NABPLEX (National Association of Boards of Pharmacy Licensure Examination) exam in 1988 and attained a 96.4 percent pass rate. No parallel national data or interpretive information were provided.

The College of Health Related Professions provided data on certification examinations for nurse anesthetists, and graduates in cytotechnology, extracorporeal circulation technology, health information

administration, medical technology, occupational therapy, ophthalmic technology, physical therapy, and radiation therapy. Pass rates in each of these certification exam areas are high and compare favorably (where data are provided) with national pass rate averages.

Longitudinal data spanning from December 1984 to December 1988 were provided on the results of the certification examination for nurse anesthetists (seven exam administrations were reported). The data indicate that virtually all graduates pass the examination the first time and with mean scores that are comparable to and often higher than national mean scores. With almost no exceptions, graduates of the nurse anesthetist program meet professional certification standards immediately upon exiting their program of study.

Cytotechnology graduates attained a 100 percent pass rate on annual certification examinations administered between August 1984 and August 1988. In every exam administration reported, the mean scores of program graduates exceeded national mean scores.

Similar findings were reported for graduates of the extracorporeal circulation technology program on the Certification Examination of the American Board of Cardiovascular Perfusion. Annual examination results reported between 1982 and 1989 indicate that 100 percent pass rates were achieved for all but two years (1984 and 1988). Percentile program mean scores exceeded parallel national data for all but one year (1984).

Only one certification exam administration (1988) was reported for health information administration graduates. Fifty percent (6 of 12) of the graduates passed the examination which exceeded the nation mean pass rate for that year by 34 percent.

Annual National Board certification scores for medical technology graduates were provided for the period 1984-1988. Between 1984 and 1986 the percentage of program graduates who passed the examination on the first attempt ranged between 91 and 100 percent. In 1987 and 1988, however, that percentage declined to 53.8 and 56.3 respectively while national averages remained relatively stable (76.6 and 74.7 percent respectively). No interpretive data was included to explain this sudden drop in the initial pass rate.

Brief summary results of the 1988 licensure examination for occupational therapy graduates indicated that 100 percent of the 17 graduates that took the examination passed it. Such results were 70 percent above the national mean pass rate for that year.

The Department of Ophthalmology attempted to obtain Orthoptic student alumni board scores from the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO). The information that was received from the Department via JCAHPO was not decipherable for assessment purposes as the mean scores presented were not contextualized with information regarding professional examination "cut off" scores or national data.

Longitudinal data (1984-1988) on the success of Physical Therapy

program graduates on licensure examinations demonstrate a consistently high pass rate for first time examinees. The small number of graduates (no more than three per exam administration) who did not pass the examination on the first attempt did so on the following attempt. Program mean scores exceeded parallel national data for every year reported.

Results of the Certification Examination of the American Registry of Radiologic Technologists for period 1984-1989 show that over the last three administrations (1987-1989) 100 percent of the graduates tested (a total of 17) have passed the exam. During the preceding three years the pass rate fluctuated between 66 and 75 percent. The average examination score for the Medical University's program has exceeded the national average for all but one year (1984).

Performance of Professional Program Graduates on Licensing and Certification Exams

South Carolina State College reported on the results of the National Teachers Examination (NTE) and the Registered Examination for Dieticians. A licensure examination in social work was mandated by the legislature in 1988, but data are not yet available. The first graduates of South Carolina State's "generic" nursing program will not graduate until 1992. Graduate students in speech pathology and audiology have the option of taking the National Examination in Speech Pathology and Audiology (NESPA) which qualifies them to work in private practice, clinics, or hospitals. The institution is developing a systematic method for collecting and evaluating students' scores on this examination.

Sixty-four out of 66 graduates of undergraduate teacher education programs had their scores on the National Teacher Examination (NTE) Professional Knowledge Examination forwarded to the institution. Of those students, 77 percent scored at or above the passing standard. Fifty-nine of 66 of the graduates had their scores on the NTE Specialty Area Examinations reported to the institution. Of those students, 59 percent passed. The School of Education at South Carolina State College is extremely concerned about these pass rates and has developed new criteria for determining progress and developing competency in basic skills. It is also offering special seminars and workshops to help prepare students for the education tests, and is screening seniors for readiness to take the NTE Professional Examinations.

The School of Education has consistently increased the percentage of students who have their scores reported back to S.C. State. In 1985-86, only 32 percent of the students had the specialty scores reported; in 1988-89, 89 percent had those scores reported. Beginning in Spring 1990, students who complete approved teacher education programs at S.C. State will be required to furnish NTE score reports for specialty areas. S.C. State officials should be commended for taking aggressive action to remedy weaknesses. It should also be noted that 28 of 36 students who completed the requirements for the Ed.S. or Ed.D. degree in Educational Administration since the inception of that program have had their NTE Administrator's Examination scores reported to the institution. The pass rate for those students is 100 percent.

Graduates of the Food and Nutrition program at S. C. State, which is approved by the American Dietetic Association, may become eligible to take the Registration Examination for Dieticians (R.D.) if, following their graduation, they successfully complete a post-baccalaureate ADA-accredited dietetic internship or ADA-approved pre-professional practice program (AP_4). There are no approved internships available in South Carolina and only one recently established AP_4. Nevertheless, in the past five years, five students have taken the R.D. examination and two (40 percent) passed. The faculty and program director are concerned about this low pass rate and have developed a plan to inprove the performance of graduates on the exam. That plan includes revision of syllabi to include more clinical experiences and practice oriented

examination questions, provision of more review sessions and refresher courses, and analysis of a follow-up survey to obtain more information about program weaknesses.

Reports of Program Changes that have occurred as a Result of External Program Evaluation

Out-of-state consultants who evaluated degree programs in psychology, sociology, and anthropology in 1985 listed a number of difficulties in the bachelor of science degree programs in psychology and sociology at South Carolina State College. These included heavy teaching loads, small departmental budgets, lack of microcomputers, and low productivity in both programs as well as lack of qualified faculty for the psychology major. Both programs were given provisional approval; follow-up reports addressing correction of the deficiencies were required. Initial follow-up reports did not satisfactorily address all of the deficiencies; the programs were continued on provisional approval and additional follow-up reports were required. In April, 1989, the Committee on Academic Affairs determined that the problems with both programs had been satisfactorily resolved, and voted to give full approval to the programs' continuation.

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 26 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at South -37-Carolina State College met all ten high school course prerequisites. This figure increased to 60 percent in 1989. While there has been a significant improvement in the percentage of in-State freshmen who meet the prerequisites, the institution's commitment to serving educationally disadvantaged students makes it difficult to increase the percentage of students who have met all of the prerequisites as rapidly as might be desired. S.C. State officials must continue to emphasize to high schools the need for students to complete the appropriate courses for college entrance.

Performance of Professional Program Graduates on Licensing and Certification Exams

The University of South Carolina at Aiken provided information on licensing exams in nursing and education. Of the 21 graduates who took the National Council Licensure Examination for Registered Nurses (NCLEX-RN) during the July, 1988 administration, 20 passed, well above the State and national rates of 87 percent and 84 percent respectively.

Students who wish to enter the field of education may take the Education Entrance Examination (EEE) three times. USC-Aiken voluntarily reported on all three administrations. Seventy-five of 101 first-time examinees passed, an institutional rate of 74 percent as compared to a State rate of 76 percent. The institutional pass rates for second and third time examinees were 67 percent and 22 percent respectively, as compared to State rates of 51 percent and 49 percent.

USC-Aiken graduates did very well on the National Teachers Examinations. Of 80 students taking the examinations during the 1988-89 school year, 79 passed the Professional Knowledge Examination and 77 passed the speciality knowledge examination in their area.

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 33 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at USC-Aiken met all ten high school course prerequisites. This figure increased to 78 percent in 1989, a very significant improvement. The 22 percent of the in-State freshmen who are admitted as exceptions may negatively affect the pass rates on the EEE examination, mentioned earlier, since that examination measures basic skills that should have been learned in the high schools as part of the college preparatory curriculum.

UNIVERSITY OF SOUTH CAROLINA-BEAUFORT

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 41 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at USC-Beaufort met all ten high school course prerequisites. This figure increased to 71 percent in 1989. While there has been significant improvement in the percentage of resident freshmen who meet the prerequisites, demographics often make it difficult to recruit a sufficient number of entering students with appropriate qualifications. The institution must continue to emphasize to high schools the need for students to complete the appropriate courses for college entrance.

Performance of Professional Program Graduates on Licensing and Certification Exams

USC-Coastal reported on the results of examination scores in accounting, education, and nursing. Of eleven graduates sitting for the Certified Public Accounting (CPA) examination in 1987-88, two were sitting for the first time and nine had sat for two or more times. Six of the 11 either passed or obtained conditional status.

Only 58 of 96 students (60 percent) who graduated with degrees in education in 1987-88 had their NTE scores reported back to USC-Coastal. Of those 58, 46 (79 percent) passed their special area examinations. Because of the way scores are reported and the education curriculum was structured, the college finds it difficult to assess areas of difficulty and use the information for improvement. However, the institution has addressed this problem by allowing secondary education majors to major in specific disciplines. It is felt that this may improve test scores as well as simplify assessment.

Twenty-eight 1987-88 nursing graduates took the nursing licensing examination within one year of their graduation. Twenty-three (84 percent) passed the July administration and three of five repeaters (60 percent) passed in February. Following the two administrations, 26 of 28 or 93 percent of the graduates had passed the exam. Institutional analysis of subscores on the test indicated a need to address psychological behaviors and management skills more thoroughly. The institution has hired a full-time faculty member in the area of psychiatric nursing and has added a class in management skills to the curriculum. The institution is commended for using assessment data to strengthen the curriculum, even when pass rates are good.

Reports of Program Changes that have Occurred as a Result of External Program Evaluations

Out-of-State consultants who visited USC-Coastal's baccalaureate program in applied mathematics during the 1986-87 school year noted weaknesses in faculty qualifications, space allocation, library resources, and curriculum with respect to that program. At its meeting on November 5, 1987, the Commission granted provisional approval and requested submission of a report by September 1, 1988 outlining steps that would be taken to strengthen the program in accordance with the consultants' recommendations. The report was submitted and appropriate actions were either taken or in process. In October, 1988, the Committee on Academic Affairs reinstated full approval of the program.

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 32 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at USC-Coastal met all ten high school course prerequisites. This figure increased to 95 percent in 1989, an outstanding improvement that reflects USC-Coastal's commitment to a strengthened admissions process for State residents.

Performance of Professional Program Graduates on Licensing and Certification Exams

The University of South Carolina at Columbia reported on results of licensing or certification exams in accounting, education, engineering, nursing, law, medicine, and pharmacy.

State pass rates and those of USC-Columbia graduates who sat for the Certified Public Accounting (CPA) examination were very similar for both first-time and repeat examinees who took the examination in November, 1988. Two and one-half percent of USC first-time examinees passed all parts of the CPA exam whereas the State average was 2.4 percent. Eighteen percent of first-time examinees at USC and across the State gained conditional status on the November 1988 administration. While the faculty of the accounting program "do not accept the CPA examination as one on which the quality of the accounting program can be assessed" for numerous reasons, continued collection and analysis of appropriate data from the Board of Accountancy and from alumni who sit for the examination may be useful as one indicator of strengths and weaknesses in the curriculum.

The College of Education reported on both the Education Entrance Exam (EEE) and the National Teacher Examination (NTE). USC-Columbia students who took the EEE in June 1988; October, 1988; and February, 1989; had first-time and repeat pass rates that were above the State average. During the February 1989 administration of the EEE, 126 of 148 USC-Columbia examinees passed (85 percent). The State pass rate for the same EEE administration was 76 percent. Ninety-six percent of the education graduates who took the NTE Professional Knowledge Examination passed, while 88 percent passed the Specialty Area Examination. The University stated that neither national nor state pass rates for the sections of the NTE are known to be available. There was no indication whether the results of tests in some specialty areas were weaker than others and, if so, how such information might be used.

Approximately 50 percent of the seniors in engineering take the Fundamentals of Engineering examination. Of these, 79 passed, a rate of 70.5 percent passed. This figure is approximately equal to the national pass rate. The USC-Columbia College of Engineering was able to obtain data on graduates who completed the Professional Engineering examination during the April and October 1988 administration. USC's passing rate was 71 percent, as compared to a nationwide rate of 62 percent for institutions accredited by the Accreditation Board for Engineering and Technology.

The College of Nursing reported on the results of the two administrations of the National Council Licensure Examination for Registered Nurses (NCLEX-RN) that were given in July, 1988 and February, 1989. While there was a pass rate of 83 percent for the July administration, the rate dropped to 59 percent in February. During the two administrations, 75 of 102 first-time takers passed, a 73.5 percent pass rate. The national average was 84 percent. Because of its serious

concern about the scores, the College of Nursing has taken a number of actions ranging from stricter academic standards for retention in the program to changes in the undergraduate curriculum. We commend the college for its aggressive efforts to correct problems that may have caused a decline in scores.

The pass rate on the July, 1988 and February, 1989 administration of the South Carolina Bar Examination was approximately 85 percent for USC graduates. The School of Law routinely attempts to assess its strengths and weaknesses through informal methods, and is developing a more formal survey process for feedback from alumni.

The National Board of Medical Examiners (NBME) Test is a national examination that is administered in three parts. Part I is administered at the conclusion of the sophomore year; 54 of 57 students who completed that part during the 1988-89 academic year passed on their first attempt. Three students will retake Part I during the summer of 1989. Historically, 99 percent of the USC-Columbia School of Medicine students pass Part I, and their average score is higher than the national average. All seniors in the 1989 graduating class passed Part II with an average score higher than the national average. Historically, 100 percent of the first year residents have passed Part III (with an average score equivalent to the national average), thereby allowing them to become licensed physicians. The success of USC medical students on this test is particularly significant in view of the fact that the scores of School of Medicine freshmen on the Medical College Admissions Test are lower than the national average.

Graduates of the College of Pharmacy must pass the National Association of Boards of Pharmacy Licensure Examination (NABPLEX) in order to practice pharmacy professionally in the United States. They must also pass the South Carolina Law examination in order to practice in South Carolina. The College of Pharmacy reported on three administrations in June, 1988; September, 1988; and January, 1989. Ninety-two graduates of the College of Pharmacy took the NABPLEX and 74 graduates took the S.C. Law Exam. Both examinations may be repeated when failed. Following the three administrations 83 of the 92 graduates had passed the NABPLEX (a pass rate of 90 percent) and 71 of 74 graduates passed the S.C. Law examination (a pass rate of 97 percent). The average score of USC College of Pharmacy graduates on the NABPLEX was 94.4, slightly above the national average of 93.3. The College of Pharmacy is pleased with the record of its graduates on these examinations, but recognizes the importance of using additional measures of quality as well.

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 56 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at the University of South Carolina-Columbia met all ten high school course prerequisites. This figure increased to 82 percent in 1989. While the improvement is significant, the University must continue to press forward on its demand that students complete appropriate high school prerequisites in order to continue to gain stature as a high quality comprehensive university.

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UNIVERSITY OF SOUTH CAROLINA-LANCASTER

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 38 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at USC-Lancaster met all ten high school course prerequisites. This figure increased to 58 percent in 1989. While there has been significant improvement in the percentage of resident freshmen who meet the prerequisites, demographics often make it difficult to recruit a sufficient number of entering students with appropriate qualifications. The institution must continue to emphasize to high schools the need for students to complete the appropriate courses for college entrance.

UNIVERSITY OF SOUTH CAROLINA-SALKEHATCHIE

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 14 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at USC-Salkehatchie met all ten high school course prerequisites. This figure increased to 33 percent in 1989. While there has been significant improvement in the percentage of resident freshmen who meet the prerequisites, demographics often make it difficult to recruit a sufficient number of entering students with appropriate qualifications. The institution must continue to emphasize to high schools the need for students to complete the appropriate courses for college entrance.

Performance of Professional Program Graduates on Licensing and Certification Exams

The University of South Carolina-Spartanburg voluntarily reported on the results of the February, 1989 Education Entrance Examination (EEE) as well as the National Council Licensure Examination for Registered Nurses (NCLEX-RN). It did not report on the Certified Public Accountant Examination or the National Teacher Examination, but indicated that both of these would be included in the annual report that is due on July 1, 1990.

The pass rate of USC-Spartanburg students who attempted the EEE for the first time was 76 percent, equal to the State rate. The institution reports that nearly 50 percent of the failures were transfer students who did not complete their general education core courses at USC-Spartanburg. If those students were factored out, the pass rate of first-time takers would have been 85 percent. Due to the transfer students, the institution has set a pass rate of 80 percent for first-time takers. Those who were taking the test for the second time had a pass rate of 64 percent, as compared to a State pass rate of 51 percent. The school is setting a goal of 75 percent for these students. No students repeated the test a third time during the February administration.

During the July 1988 administration, 50 of 52 USC-Spartanburg nursing graduates who took the examination passed, a rate of 96 percent. State and national pass rates for that administration were 87 percent and 84 percent respectively. The institutions did not report if the two students who failed in July repeated the examination in February. Despite the strong showing, the faculty at USC-Spartanburg has instituted a number of measures to maintain or improve program quality.

Reports of Program Changes that have occurred as a Result of External Program Evaluations

In November of 1988, out-of-State consultants reviewed interdisiplinary programs at several public colleges and universities. The BA/BS degree program in interdisciplinary studies at USC-Spartanburg was evaluated less than positively with respect to structure, philosophy, breadth and depth, course scheduling, program efficiency and role. The institution submitted a report to the Committee on Academic Affairs by June 1, 1989 addressing these issues, and on June 1, the Committee voted to allow the program to continue to operate under its current status. The Committee also requested a report (due September 1, 1990) summarizing any subsequent programmatic changes made as a result of continuing deliberations.

Success of Entering Students in Meeting College or University Admissions Requirements

In the fall of 1987, 23 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at USC-Spartanburg met all ten high school course prerequisites. This figure increased to 92 percent in 1989, an outstanding improvement that reflects USC-Spartanburg's commitment to a strengthened admissions process for State residents.

UNIVERSITY OF SOUTH CAROLINA-SUMTER

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 41 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at USC-Sumter met all ten high school course prerequisites. This figure increased to 88 percent in 1989.

UNIVERSITY OF SOUTH CAROLINA-UNION

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 26 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at USC-Union met all ten high school course prerequisites. This figure increased to 62 percent in 1989. While there has been significant improvement in the percentage of resident freshmen who meet the prerequisites, demographics often make it difficult to recruit a sufficient number of entering students with appropriate qualifications. The institution must continue to emphasize to high schools the need for students to complete the appropriate courses for college entrance.

Performance of Professional Program Graduates on Licensure and Certification Exams

Winthrop College submitted data on the performance of program graduates on the National Teachers Examination and the CPA Examination. Student pass rates on three administrations of the NTE Professional Knowledge and Specialty Area examinations were outlined in the College's report. Both first time and repeat test takers were included together in the data provided. Pass rates on the Professional Knowledge and Specialty Area examinations generally appear high. For example, of the total number of Winthrop College students who took the Professional Knowledge Examination in June and October 1988 and in March 1989 (on those test dates 29, 119, and 32 students took the examination respectively) only one student in each test population did not pass. Data from the examinations are forwarded to the appropriate faculty so that a review of the test results may proceed to determine whether there is need for program change.

The College reported on results from two administrations of the CPA Examination (May 1988 and November 1988). The data provided indicates that while Winthrop graduates who take the examination for the first time do not pass all parts on the initial attempt, approximately 25 percent gain conditional status and predictably fare better on the second or third attempt. The pass rate for 1988 administrations attributed to Winthrop graduates (54 administrations) was 17 percent.

General Education

As part of its assessment of general education, Winthrop College is serving as a pilot institution (now for the second year) for the Academic Profile II (an Educational Testing Service instrument). In 1988-89, 150 sample freshmen and seniors took the short form of the exam. The sample size was increased in 1989-90 to 450 freshmen and seniors. The College was awaiting a 1988-89 score report from ETS when the first institutional effectiveness document was submitted to the Commission.

An essay component was added to the senior level testing at the College in 1989 and was used as part of a pilot project with 70 upper classmen selected randomly from those taking the Academic Profile II. Essays were scored by faculty from a variety of disciplines using criteria developed at Winthrop. Results of the pilot testing were still being compiled at the time the Commission received Winthrop's effectiveness report in July 1989. At that time, the College was preparing to field test the College Base instrument by Riverside Publishing Company which would increase the sample size for the essay component of the general education assessment program.

Majors or Concentrations

In 1988-89 the School of Business continued to utilize the American Assembly of Collegiate Schools of Business (ASCSB) Core exam on a pre and post test basis while the School of Education utilized instruments and procedures required for teacher certification (EEE, NTE, and APT).

Results from the AACSB exam indicated a "better-than-average" gain score for Winthrop business administration members.

Within the College of Arts and Sciences approximately four departments have pilot tested major exams. For example, the departments of English and Biology pilot tested locally developed, senior level exams whereas the Department of Art used senior portfolio reviews. The Department of Music continued using competency testing and senior performance appraisals as part of the assessment program within the School of Visual and Performing Arts.

Alumni Follow-Up Studies

In 1988-89 Winthrop conducted a mail survey of over 1800 alumni and received responses from more than 700 graduates. Data gleaned from the survey and several alumni studies conducted by the Placement Center and a faculty member showed that graduates considered career planning as one area of weakness at the College. As a result of this finding, the Placement Center changed some of its operational functions (i.e., the center implemented a resume-driven system of student utilization of services, the quality and frequency of the newsletter increased, etc.). The College's Office of Assessment and Placement Center have also planned and are preparing to implement a coordinated system of student and alumni career tracking.

The College is in its second year of administering an undergraduate survey to graduating seniors. Individual departmental reports of results from graduating majors and a college-wide report of results are to be distributed on a pilot basis during fall 1989.

Report of Program Changes that have occurred as a result of External Program Evaluations

Winthrop's Master in Music Education program was evaluated by the Commission's external consultants in 1985-86. The consultants raised several concerns about low enrollments in the program and specific curricular emphases. The consultants noted further that greater attention needed to be given to "appropriate research for faculty members whose major focus" entailed music education.

In response to the consultants' criticisms, Winthrop has sought to increase enrollment by maintaining a full schedule of summer classes for public school teachers and developing new class schedules in order to serve local teachers more effectively. Recruiting campaigns also are underway. The College has also commenced some curriculum revisions to focus additional attention on music education as opposed to music performance. Finally, greater recognition for research in the field of music education has been achieved in part through a new definition of what constitutes such research. The definition was developed through the newly created School of Visual and Performing Arts.

Success of Entering Students in Meeting College or University Admissions Prerequisites

In the fall of 1987, 41 percent of the previous spring's South Carolina high school graduates who enrolled as freshmen at Winthrop College met all ten high school course prerequisites. In 1989 the number of such freshmen increased to 88 percent. Steady and substantial improvement in this area indicates clearly that South Carolina high school graduates are better prepared to meet the challenges of the College's academic programs.

TECHNICAL COLLEGES

Although the technical colleges are only required to report on the results of licensing and certification examinations in degree program areas, a number of institutions voluntarily reported on such examinations in non-degree areas ranging from barbering to practical nursing. Ten technical colleges reported on 38 licensing or certificate examinations in degree areas, and a number of those same colleges, plus three others, reported on 26 examinations in non-degree areas. One additional college, Chesterfield-Marlboro Technical College, which had no programs with licensing or certification examinations, submitted a report on Alumni Follow-up Studies ahead of the implemented schedule. No information was required or received from Aiken Technical College or Williamsburg Technical College.

Alumni Follow-Up Studies

The college conducts follow-up surveys on early leavers, graduates, and continuing students. Findings of the early leaver survey show that few students within this group leave the institution for reasons that are preventable or negative. Results of the February, 1989 survey indicated that 70 percent of those responding were "stopping out" and planned to re-enroll within a year.

The survey of graduates is administered after responders have had an opportunity to obtain employment and ascertain the usefulness of their education. Results of the survey that was tabulated in May 1988 indicate a very high overall level of satisfaction with the college and its services. Specific questions dealt with the effectiveness of instructors and the quality of course content. Instructors were rated "very good" or "good" by 68 percent of the respondents and the content of major-related courses was rated "good" or "very good" by 83.3 percent of the respondents.

The continuing student survey samples student opinion midway through the student's experience at Chesterfield-Marlboro Technical College. Results of the fall quarter 1988 survey indicate that 89 percent of the students rate the advisement process very good or good and 89.5 percent indicate that they are satisfied or very satisfied with their educational experience at that time.

DENMARK TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Although Denmark Technical College does not have any degree programs for which graduates must be licensed, the institution voluntarily reported on the results of licensing examinations in barbering and cosmetology, areas in which diploma programs are offered. During the past five years, 57 graduates of the barbering program have taken the licensing examination in that area. Of those, 53 have passed for a 93 percent pass rate. During the same period 55 graduates have taken the licensing examination in cosmetology. Fifty-two (93.6 percent) have passed. Although no information was provided on State pass rates, the institution's record in both of these areas appears to be very good.

FLORENCE-DARLINGTON TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Florence-Darlington Technical College reported on the results of licensing on certification exams administered to graduates or last quarter students of five two-year associate degree programs in nursing, dental hygiene, medical laboratory technology, radiological technology, and aircraft maintenance technology. Information was also provided on the results of such examinations taken by graduates or last quarter students in one-year diploma programs in dental assisting, surgical technology, and respiratory technology and therapy.

During 1987-88, all examinees in nursing (79), dental hygiene (4), radiological technology (9), and aircraft maintenance technology (8) passed the first time they took the pertinent licensing examination. Two of three graduates in medical laboratory technology passed the first time they took that examination, and the third passed on the first repeat. The institution is commended for the outstanding record of its graduates on these examinations related to two-year associate degree programs.

Graduates of the one-year diploma programs in dental assisting and surgical technology are not required to take licensing or certification examinations in order to work. However, in 1987-88 four dental assisting graduates took the exam and three (75 percent) passed. Fifteen surgical technology graduates took that exam and 11 (73 percent) passed. Five of seven graduates (71 percent) passed the National Board for Respiratory Care exam, which is required in order to practice in that field. The institution did not say whether State or national pass rates are available for these examinations, and did not state institutional goals, making interpretation of these results difficult. Additional interpretive information will be requested for future years.

GREENVILLE TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Greenville Technical College provided single year data on the examination performance of graduates in the following degree programs: Nursing, Emergency Medical Technology, Dental Hygiene, Medical Laboratory Technology, Physical Therapy, Radiologic Technology, and Respiratory Therapy. Where State or national pass rate averages were provided for comparative purposes, the performance of the College's graduates consistently exceeded such averages. One hundred percent pass rates were achieved by graduates on the National Board Dental Hygiene Examination (twelve examinees, March 1988), the Physical Therapist Assistant State licensure examination (eleven examinees, February 1989), and the American Registry of Radiologic Technologists examination (ten examinees, October 1988). High pass rates were also reported for graduates in Nursing, Emergency Medical Technology (basic), and Medical Laboratory Technology.

Thirty of the College's associate degree in nursing graduates took the NCLEX-RN in February 1989 and averaged a 97 percent pass rate which surpassed the national average by 12 percent. Sixteen graduates of the Emergency Medical Technology (EMT) program who took the EMT examination in March 1989 to obtain certification at the basic EMT professional level achieved a 94 percent pass rate average which was 10 percent higher than the State average. A 90 percent pass rate average was attained by nine medical laboratory technology graduates on the August 1988 administration of the American Society of Clinical Pathologists exam (10 percent higher than the national average). Where pass rates were lower, (69 percent in the March 1989 examination for advanced EMT professionals, and 73 percent for the May 1988 administration of South Carolina State Board for Dental Hygienists), the inclusion of State and/or national data may indicate that such pass rates are acceptable to the institution.

While low examination scores were reported for graduates in respiratory therapy, the institution has taken corrective action to improve student professional knowledge and skills. In December 1988, seven graduates took the written Registry examination for respiratory therapists and 71 percent passed (the national mean pass rate was 73 percent). Nine graduates took the Clinical Simulation examination (two of the students were repeat examinees) and 56 percent passed (as compared to 79 percent nationally). In response to the low pass rate on the clinical simulation, Greenville Technical College hired additional faculty with clinical expertise so that students will receive "sufficient supervision" while assigned to respiratory therapy clinical areas.

HORRY-GEORGETOWN TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Horry-Georgetown Technical College offers a Practical Nursing Diploma on its Georgetown campus and submitted licensing data for program graduates for the years 1985 through 1988. The data indicates that of the 58 graduates who took the Licensed Practical Nursing exam over the four year period reported, 49 (84.4 percent) passed it. Pass rates have fluctuated between 91.7 percent (1985) and 78.3 percent (1988). While recognizing a need for improvement, the College believes that the nursing program remains effective.

Performance of Professional Program Graduates on Licensing and Certification Exams

Midlands Technical College's institutional effectiveness report outlined the performance of graduates in thirteen academic programs on licensing and certification exams. Reports on graduate performance were submitted for programs in biomedical technology, dental assisting, dental hygiene (national and State Board exams), industrial electricity, medical laboratory technology, medical record technology, nuclear medicine, nursing (examinations for registered and practical nurses), radiologic technology, respiratory therapy, and surgical technology. Included also were explanations of the scores and a description of institutional actions taken as a result of graduate performance on the respective examinations. Whenever possible, the College presented three years of examination results (1986-1988) for each professional program (the only exceptions to this pattern were newly established programs in biomedical technology, medical record technology, and surgical technology). Among the general findings identified by the College after reviewing examination results were the following:

1. Midlands Technical College professional program graduates have achieved examination score averages above the national norm on 38 out of the 39 total years of exam results reported.
2. Five of the 13 programs (biomedical equipment technology, nuclear medicine, radiologic technology, respiratory therapy, and surgical technology) have 100 percent pass rates for all years reported.
3. 1988 scores for Midlands Technical College graduates with associate degrees in nursing were number one out of all 18 two-year and four-year nursing programs in South Carolina.

Where professional examination scores or pass rates were not deemed high enough, faculty and administrators in the corresponding academic programs interpreted and used examination data to improve program quality. For example, low pass rate percentages (55.6 percent) of 1986 medical laboratory technology (MLT) graduates on the American Society of Clinical Pathologists Registry Exam influenced program faculty to require MLT seniors to practice and take an exit exam using a computerized "mock registry." Students must now obtain a grade in the seventy-fifth percentile or higher on the "mock registry" in order to complete the MLT Seminar V course and to graduate. Following implementation of the requirement, pass rate averages rose to 75 percent in 1987 (for eight graduates) and 100 percent in 1988 (for four graduates).

A variety of other professional programs have faculty and staff that use examination results to improve quality. The nursing program utilizes summary profiles purchased from McGraw-Hill Company to further analyze graduate performance on the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Faculty review the results and examine the curriculum in areas of lowest performance percentiles. Instructional and curricular changes are then made where appropriate. In radiologic technology, professional examination results

were used to revise the curriculum so that it included areas in quality assurance and computer skills. These are but a few examples of how professional examination results are used as part of program assessment and improvement at Midlands Technical College.

ORANGEBURG-CALHOUN TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Orangeburg-Calhoun Technical College reported on the results of licensing or certification examinations administered in three two-year associate degree areas and two one-year diploma areas. The institution did a good job of interpreting the data and indicating what measures were being taken to improve where such improvement was deemed advisable.

During the 1988 administrations of the National Council Licensing Examination for Registered Nurses (NCLEX-RN), 25 of 30 (84 percent) of the nursing graduates passed on the first attempt. While this pass rate was close to that of the nation as a whole, the institution has some concerns that the rate has declined from 92 percent in 1986. Careful analysis of recent test results has enabled the institution to develop a plan for curriculum improvement in three areas (growth and development, psycho-social concepts, and basic math skills). Specific content areas have been added to courses and will be emphasized during instruction.

In 1988, all four students who took the American Registry of Radiologic Technology examination passed, as compared to four out of five in 1987 and seven out of nine in 1986. The institution attributes the improvement to changes in teaching methodology and use of computerized registry review examinations.

During the last two years, four of seven candidates passed the Board of Registry examination for medical laboratory technicians. This is down from three of four passes in 1986 and six of six in 1985. The department has indicated its concern and is using more problem solving situations and higher level questions on tests as well as computerized review examinations.

The pass rates for graduates of the diploma program in practical nursing have been excellent for the last three years, ranging from 94 percent to 100 percent on the NCLEX-PN exam. No more than one student has failed in any year.

Information that was submitted on the National Entry Level certification Examination for respiratory therapy technician was rather sketchy. However, it appears that ten of 21 graduates during the last three years have passed the examination. The national pass rate is approximately 50 percent.

PIEDMONT TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Piedmont Technical College's first institutional effectiveness report contained pass rate data for graduates in nursing, radiologic technology, and respiratory therapy. Interpretive information was included also to describe the meaning of each set of examination results.

Since 1979, the College has graduated 228 students from the Licensed Practical Nurse (LPN) diploma program. Of the 228 graduates, only 25 have not passed the exam on the first writing (20 of the 25 passed the exam on the second attempt). from 1979 to 1988, the College has averaged an 89.1 percent pass rate for first time writers on the LPN exam. In the most recent year reported (1988), 16 graduates took the examination and 15 passed (93.7 percent).

Summary information was presented on the performance of graduates (1977-1988) on the American Registry of Radiologic Technologists exam. Since 1977, 110 Piedmont graduates have taken the Radiologic Registry Exam and 76 (69 percent) have passed it. Over the same period, the range of average scores for the exam have been from a low of 69 in 1982 to a high of 88 in 1977 (a score of 75 is required for licensure). Given the average score of graduates over the twelve year period reported, a graduating class from the College may expect to score, on the average, 5.58 points above the score required to pass the registry exam.

Since 1978, Piedmont Technical College has had 60 graduates in the respiratory therapy technician diploma program take the licensing exam administered by the National Board for Respiratory Care. Of the 60 graduates who took the exam, 53 (88.3 percent) passed it. No parallel State or national data were provided for this or other examinations reported.

SPARTANBURG TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Professional programs at Spartanburg Technical College include nursing, surgical technology, radiologic technology, medical laboratory technology, dental assisting, and respiratory care. Data on licensing or certification examinations for each of the professional programs were provided with interpretive information.

Pass rate averages on the State Board Nursing Exam were provided for administrations between October 1985 and October 1988. The pass rate for first time exam writers during that period ranged between 91 percent for 30 examinees in 1985 (only one student took the exam in April 1986 and technically gave the program a 100 percent pass rate) and 81 percent for 32 graduates in October 1986 and 27 graduates in October 1987. In October 1988, the last examination date reported, 22 graduates took the examination and achieved a 92 percent pass rate.

Data provided on the Certification Exam for Surgical Technology included pass rates and mean scores for the academic years 1985-86 through 1987-1988. For every year reported, Spartanburg Technical College graduates exceeded national pass rates and mean scores on the examination. A one hundred percent pass rate was achieved in 1985-86 (with 9 graduates) and in 1987-88 (with 13 graduates). Of the 17 graduates who took the exam in 1986-87, 16 passed (94.1 percent). The College noted in its institutional effectiveness submission that for the three years prior to those reported (1982-83, 1983-84, 1984-85), 100 percent of the students passed the exam.

This high record of pass rate success was virtually duplicated in the performance of graduates on the American Registry of Radiologic Technology exam. The College reports that since 1980, only one graduate has failed the examination (1987). Score averages on the examination were provided for 1986 through 1988. For two of the years (1987 and 1988) the score averages of the College's graduates surpassed State and national averages by three percent or more. In 1986 the score average (89) equalled that of the State and exceeded that of the nation (82).

The performance of graduates on the American Registry of Medical Laboratory Technology exam were summarized numerically for those tested since August 1986. One hundred percent (August 1987) to 89 percent (August 1986) of first time test takers have passed the examination. Of the seven students who have repeated the examination since February 1987, three have passed it. The College did not provide comparative State or national data for this examination.

Graduate pass rates on the National Board for Dental Assisting examination demonstrate that a large majority of students trained in the dental assisting program meet professional knowledge expectations. Of the 29 graduates who have taken the examination between 1986 and 1988, all but 3.5 (one of the graduates passed a portion of the exam) have passed it.

The pass rate of respiratory care graduates on the Certified Respiratory Therapy Technician exam appears low initially until the data are compared with national pass rate averages. Pass rate averages for 1986, 1988, and 1989 graduates (1987 data were missing from the College's files) vary between 43 percent (for eight 1986 graduates) to 67 percent (for seven 1989 graduates). The national pass rate average for respiratory care graduates is 49 percent. Therefore, Spartanburg Technical College program graduates generally meet or exceed the pass rate averages of students in other programs throughout the country.

SUMTER AREA TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Sumter Area Technical College submitted data on the performance of associate degree nursing students on the State Board examination. Data on six graduating classes of nursing students (1983-88) on the examination indicate that the College's graduates have higher pass rate averages than those for the State and nation. The nursing faculty have set an 88 percent pass rate goal on the State Board examination as the minimum standard of performance for graduates. Between 1983 and 1988 the pass rate goal has been met every year save one (1984). The classes of 1983, 1986, and 1987 achieved a 100 percent pass rate (the total number of students in each class taking the exam were not provided in the College's report).

If the pass rate of nursing students on the State Board examination falls below 88 percent, the faculty will use the NCLEX-RN Profile Service, the NLU Comprehensive Test Profile, and the NLN Individual Course Profile to determine the specific areas where individual and group performance falls below the minimum acceptable standard. The curriculum and/or instructional methodology will be adjusted accordingly.

TECHNICAL COLLEGE OF THE LOWCOUNTRY

Performance of Professional Program Graduates on Licensing and Certification Exams

The Technical College of the Lowcountry reported on the results of the National Council Licensing Examination-Registered Nursing (NCLEX-RN), which is taken by two-year associate degree graduates and the National Council Licensing Examination-Practical Nursing (NCLEX-PN), which is taken by graduates of the one-year diploma graduates in practical nursing.

During the six years that the associate degree program for registered nurses has been offered by this institution, the pass rate has averaged 95 percent, ranging from a low of 87 percent in 1984 to a high of 100 percent in 1985, 1986, and 1987. Despite the high pass rates on the NCLEX-RN examination, the faculty have some concerns about a decreasing percentage of program completers. Measures are being taken to study the NCLEX Summary Profiles to determine program weaknesses.

The Technical College of the Lowcountry provided data covering the twelve year life of the practical nursing program. The data were thoroughly analyzed, and the college listed three concerns and described how it had handled or was dealing with each one. Overall, the pass rate on the examination has been very good, and the more serious problems concern relatively high attrition and an abrupt enrollment decline in 1985-86. Of those students who entered in 1987, only 44 percent graduated, although 100 percent of the graduates passed the NCLEX-PN exam. The faculty is continuing to monitor enrollment, retention, and performance on the Boards, and is increasing support services for students, many of whom come from economically disadvantaged environments and are sponsored by JTPA funding.

The college's understanding and use of data for accountability are impressive.

TRI-COUNTY TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Tri-County Technical College submitted the most detailed report on the result of licensing and certification examinations of any two-year or four-year institution. The report covered examinations in four associate degree program areas: nursing, medical laboratory technology, veterinary technology, and quality assurance. Results of examinations taken by last semester students or graduates of diploma programs in practical nursing, dental assisting, and surgical technology were also reported.

The institution set as its goal that "all curricula requiring licensing or certification will meet state or national norms for 1989-90." One hundred percent of the students (or graduates) in all programs except Quality Assurance (65 percent) and Surgical Technology (71 percent) sat for the examination in their areas. While the institution was disappointed with the results in two of the seven program areas, it has presented an outstanding analysis of the tests, their meaning, and the steps that will be taken (where appropriate) to improve.

The first-time pass rate on the National Council Licensing Examination-Registered Nurse (NCLEX-RN) examination dropped from 92 percent in 1986 and 100 percent in 1987 to 77 percent in 1988, slightly below both State and national pass rates of 79 percent and 84 percent, respectively. Although three of the five students who failed during their first attempt passed during the next administration, the nursing division was seriously concerned with the sudden drop, and has developed a comprehensive plan to review the curriculum and modify instruction in order to raise scores to their former high levels.

The other examination on which the institution found the results somewhat disappointing was that given by the American Society for Clinical Pathologists (ASCP) to graduates of medical laboratory technology programs. The ASCP examination can be taken up to six times without additional training being required. Of 13 graduates in 1988, eight (62 percent) passed the examination during their first attempt in August. The national pass rate was 80 percent. Of the five who failed, three are employed in hospitals and must become registered. All five students who failed were interviewed, test results for all graduates were carefully analyzed, and the institution has implemented a comprehensive program of follow-up and improvement.

The Quality Assurance Technology program at Tri-County is the only degree program in quality assurance available in the State. Students in the program are encouraged to take the Certified Quality Engineers (CQE) examination when they have completed eleven core (major) courses and a 30-hour refresher course. Seventeen of 26 eligible students took the examination and 13 of 17 (77 percent) passed all parts of the examination. Although no detailed information is provided back to the institution by the American Society of Quality Control, approximately

50 percent of those national examinees who took the examination in December of 1988 (including repeaters) passed. The 77 percent pass rate for Tri-County students is well above that of the nation.

Tri-County Technical College is also the only college in the State with a program in veterinary technology. Although certification is not required, all 27 graduates in 1986, 1987, and 1988 (nine each year) have taken the State Board Certification Examination. The pass rate in 1986 and 1988 was 100 percent; one student failed in 1987.

Tri-County graduates who took the National Council Licensure Examination for Practical Nursing (NCLEX-PN) have had a 100 percent pass rate for the past three years and a 98.6 percent pass rate for 414 graduates since the program's inception in 1962. The institution is commended for an outstanding long time record of accomplishment in practical nursing.

Although certification is not required to practice in the field, eight of nine (88.9 percent) of the graduating students in dental assisting passed the Dental Assisting National Board (DANB). This is a significantly improved pass rate over the two previous years, and well above the national pass rate of 79.7 percent.

Four of five (80 percent) of the graduates in surgical technology who sat for the Certification Examination for Surgical Technologists (CEST) passed, above the national rate of 77 percent. Graduates of this program have had a consistently strong pass rate since the program's inception in 1972.

TRIDENT TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

Trident Technical College's institutional effectiveness submission contained graduate pass rate data on nursing, radiologic technology, respiratory therapy, and dental assisting examinations. Pass rate averages for three of the four examinations (nursing, radiologic technology, and respiratory therapy) exceeded national pass rate averages by at least nine percent (national pass rate averages were not provided for the dental assisting exam).

Pass rate data for each examination were provided on program graduates between 1985 and 1988. During the four years reported, 146 nursing program graduates took the NCLEX-RN examination for the first time and had an overall pass rate of 90 percent. This pass rate average for first time examinees exceeds the reported national average of 81 percent.

Comparable findings were reported for graduate pass rates on the American Registry of Radiologic Technologists Examination. A 98 percent pass rate was achieved by the 44 program graduates who took the exam between 1985 and 1988. The national pass rate on the examination during the same period was 85 percent.

Dramatic also was the cumulative pass rate success of 38 graduates in respiratory therapy. Over the last four years 97 percent of the graduates have passed the National Board of Respiratory Care Examination which is approximately 29 percentage points above the national average for two year candidates.

Finally, the performance of dental assisting graduates on the National Certifying Examination reflects an overall pass rate of 94 percent for fifty program graduates. For two of the years reported (1986 and 1987), the pass rate was 100 percent for a total of 32 graduates.

YORK TECHNICAL COLLEGE

Performance of Professional Program Graduates on Licensing and Certification Exams

York Technical College provided summary data and interpretive information on professional program graduates who have taken nursing, radiologic technology, and medical laboratory technology examinations. Examination results are used at the College as one method of continuous "self-evaluation."

The pass rate averages of college graduates on the NCLEX-RN in 1984-85 and 1986-87 were 95 and 93 percent respectively which slightly exceeded or paralleled national averages. In 1988 the College pass rate average was 80 percent whereas the national average was 84 percent. An analysis of the examination revealed that greater emphasis was being placed on medical surgical nursing. To adjust to new professional expectations as reflected in the examination, the College moved the psychiatric component of the nursing program to a summer session. This permits greater emphasis within the curriculum for medical-surgical nursing. To further evaluate graduate performance, nursing program officials maintain day to day contact with employees.

The pass rate of medical laboratory technology graduates on the Board of Registry examination from 1981 through 1987 was 95.7 percent whereas the national average was 83 percent. Four of the seven years included 100 percent pass rates. In 1988 the College's pass rate declined to 64 percent while the national average remained at 80 percent. According to the College, one reason for the pass rate decline involves decreasing numbers of "traditionally better students" who enter the medical laboratory technology program. To increase the quality of students within the program, the College has raised entrance test scores. Moreover, a review course was developed for graduates who typically must wait two and a half months after graduation before taking the examination. Also, a full-time instructor has been employed to replace two part-time instructors in an effort to allow better focus on program content. Since content area scores are released to program officials, the content showing the greatest weakness each year is specifically targeted for analysis and possible curriculum revision.

The radiologic technology program graduates who took the National Registry of Radiologic Technologists examination between 1984 and 1988 had a pass rate average of 93.4 percent while the national average was 82.8 percent. Four of those years included 100 percent pass rates. Weaker test score content areas are examined for curricular improvement annually. Graduate feedback is also solicited to improve "content relevance."